USER GUIDE
Minor M200 Sieve Shaker

The M200 Minor User Guide

Test Sieve Shaker

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Description

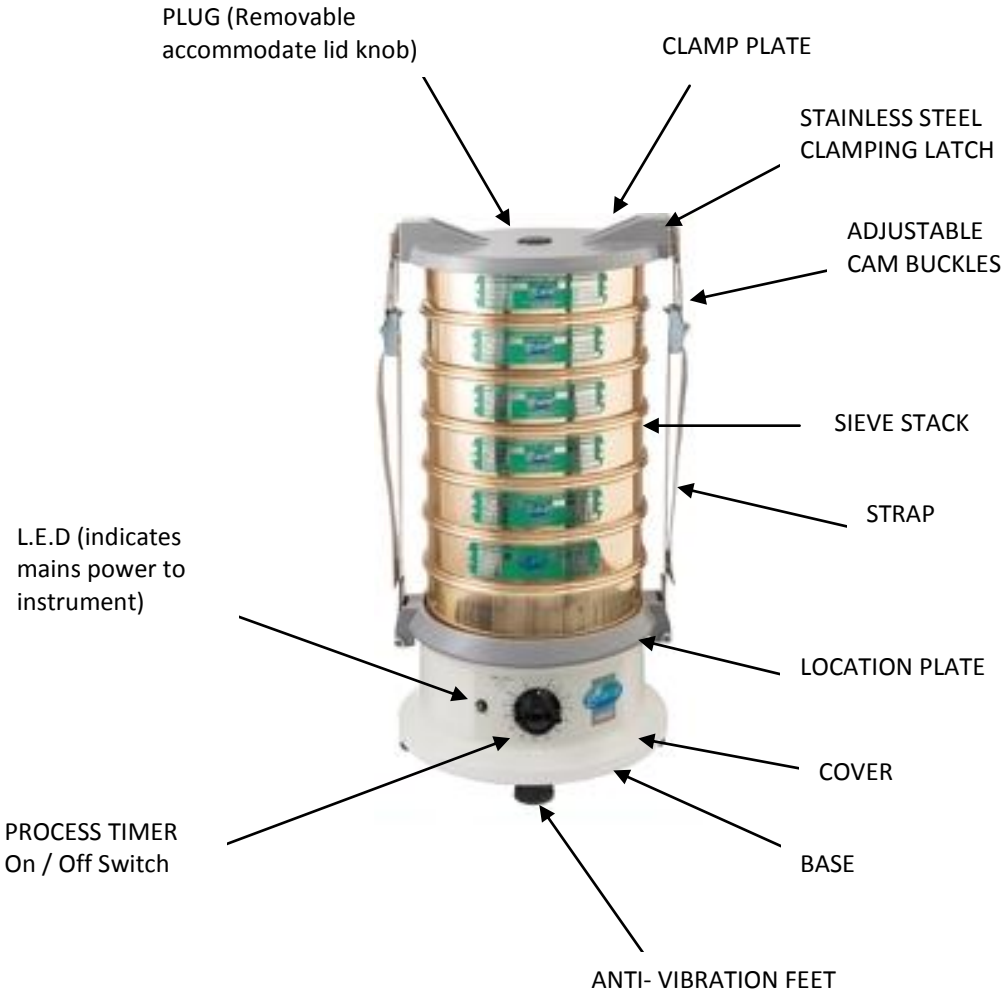
The Endecotts Minor M200 is an economical, compact and portable vibrating shaker designed to conduct sieve tests in conjunction with sieve stacks for particle sizing of various material samples. By utilising an electromagnetic drive and natural rubber spring mounts the power required is extremely low to produce the movement needed for basic sieve tests.

The MINOR M200 is a fixed amplitude shaker, operated by a single process timer which provides a range of incremental periods or continuous running.

The Minor is not recommended for any Wet Sieving operations

The Minor M200 is fully EMC and LVD compliant and complies with all relevant European directive

Description



Setting Up

Unpacking

The shaker should be set up according to the following procedure and the diagram on page 2.

The following items should be removed from the case and checked before the Minor is operated:

Take Care
The Shaker weighs 17Kg

1 off Instruction Manual.

1 off Mains Cable.

1 off Clamp Plate Assembly.

1 off Minor Shaker fitted with Clamping Straps and Buckles.

Position on a level, rigid and robust bench, suitable for the operation of the sieve shaker, being placed on a level surface ensures symmetrical distribution of the sample over the sieves, during operation.

Setting Up

Electrical Connections

Ensure that the voltage and frequency on the Rating Label, at the rear of the Minor correspond with the local electrical mains supply; if any discrepancy occurs please consult your supplier or a qualified electrician.

Do not connect to any supply other than that stated on the nameplate

IMPORTANT
This equipment must be connected to mains earth

The Minor M200 sieve shaker is provided with a detachable 2 metre long mains cable, incorporating an IEC moulded connector and plug suitable for connecting to the local mains supply. Certain models may be supplied with a fused plug. In the event of failure the fuse must be replaced with a fuse of identical rating.

Setting Up

Sieve stacking

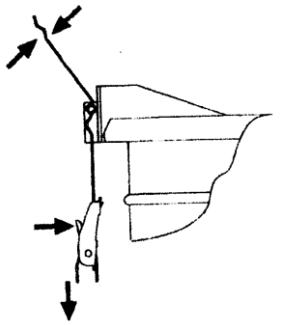
Place the receiver centrally on the location plate in the appropriate recess. Stack the required sieves on top of the receiver. Put the sample under test in the top sieve and fit the lid (optional). Place the clamp plate on top of the sieve stack.

Raise the clamping latch lever upwards to expose the latch hook. While holding the clamping latch with one hand press the lever on the cam buckle with the other. Slide the cam buckle along the clamping strap until it can be engaged into the latch hook. Release the cam buckle, pull the lose end of the strap downwards to partially tension the strap. **Do not over tension**; the clamping latch lever will remain in the raised position 20-30 degrees from the vertical when partially tensioned. Repeat these actions for the second clamping latch.

Press both levers down, closing the latches to clamp the sieve stack. “Do not use excessive force, it may be necessary to loosen the straps slightly to secure”. Repeat previous action to release or increase tension in the strap as necessary to ensure a firm grip !

Step 1
Raise clamping latch lever upwards to expose the latch hook

Step 2
Push cam buckle lever inwards and slide it along the strap to engage the lever latch hook



Step 4
Press levers

Step 3
Pull loose end of strap down to tension

Operating Instructions

Position and Function of controls

Operators should be familiar with, and fully understand the controls and indicators before operating the machine. This should be done in conjunction with the diagram on page 8.

1. Mains Inlet - Mains inlet with integral line filter.

Ensure the IEC connector on the mains lead is pushed fully into the mains inlet at the rear of the machine.

2. ***Mains Connected Indicator -*** This is a green l.e.d that indicates electrical power is connected to the equipment. The l.e.d. is illuminated when the IEC connector is pushed fully into the inlet and power is switched on at the local outlet. If the l.e.d. fails to light with the local outlet switch in the ON position then the fuse (3) has blown or power is not present at the mains.

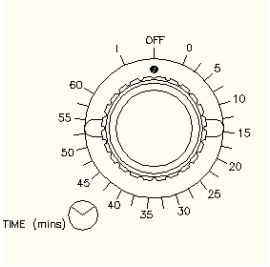
3. ***Fuse -*** This is a 2Amp, 1¼ inch long quick acting ceramic fuse. It is important that the recommended current rating is not exceeded and the fuse is replaced with the same type and size. If the fuse blows after replacement then a fault exists in the equipment which must be rectified.
handwheels at the top are loose and the locking assemblies are fully pushed down. There should be a 5mm gap between the large plain washer and the face of the handwheel.

Operating Instructions

Position and Function of controls

4. Process Timer - This is a mechanical 0-60 minute timer which also provides continuous running (for settings of less than 15 minutes rotate the knob past the 15 minute mark then back to the desired setting). Operating periods are increased by rotating clockwise and decreased by rotating anticlockwise (the timer will commence timing down as soon as the knob is released, regardless of electrical power being connected or not).

When the knob is turned anti-clockwise from Off position to the continuous running mark 'I', the shaker will continue running until the knob is returned to the Off position.



Turning timer knob allows the M100 to run for 1 min to 60 minutes clockwise

Turning timer knob anti-clockwise allows the M100 to run continuously

Take care that there are no loose sieves on the shaker

Do not release the clamp latches or buckles while the shaker is vibrating.

Do not attempt to remove sieves before the shaker has come to a halt.

Maintenance

The Endecotts Minor M200 sieve shaker is maintenance free other than keeping external surfaces clean.

Cleaning **-** The machine can be cleaned with a soft damp cloth using a solution of water and a mild liquid detergent.

Do not use any solvents for cleaning

Fuse **-** Should a fuse require replacement this must be of the identical type and rating as the original (see Page 7). The rating of the fuse is marked on a label above the fuse. Disconnect from the mains supply. Unscrew the central cap of the fuse holder with a suitable coin or screwdriver, extract the cap and the fuse together. Remove the blown fuse and place the new fuse in the metal spring within cap. Fit the cap and fuse back into the holder and screw fully.

Do <u>Not</u> over tighten!

All replacement parts must be ordered by quoting the shaker serial number and the correct part number.

Part numbers can be obtained from our sales or technical department.

Maintenance

Rubber Spring Replacement **-** If a problem develops with one of the springs it is recommended that all three are replaced.

1. Stand the shaker upside down on the location plate.

2. Unscrew the three M8 cap screws to release the base

3. Lift the base and cover (which remains attached to the base) off to access the spring columns.

4. Unscrew the spring columns from the underside of the location plate.

5. Replace the four rubber springs.

6. To reassemble the shaker, reverse the order of 1 to 5 above.

General Advice

Endecotts shakers are fully tested and factory checked before shipping to customers. No parts require lubrication or resetting unless disturbed.

The sieve shaker has been constructed and factory tested to ensure correct operation when connected to the specified electricity supply indicated on the machine rating plate.

Use of unapproved spares or any alteration to the machine would invalidate all warranties and compliance with the European directives for 'CE' marking.

Endecotts Ltd. does not accept any responsibility if the operating instructions contains in this manual are not strictly followed.

WARNING NOTE
The Minor M200 sieve Shaker is not recommended for use with liquids

Specification

Model:	Minor M200	
Voltage:	230	110
Frequency:	50 Hz	60Hz
Phase:	1	1
Power consumption:	80 VA	60 VA
Class:	1 (earthed)	1 (earthed)
Vibration speed:	3000 per min at 50Hz	3600 per min at 60Hz
Process time:	0 to 60 or Continuous	

Sieve Diameters:	**Max.No. of Sieves in Stack:**
200mm or 8”	8 Full Height
200mm or 8”	15 Half Height
100mm or 3”	12 Full Height
100mm or 3”	23 Half Height

Dimensions:	255mm Diameter 142mm High (+ Clamp plate 30mm)
Weight:	17Kg

Endecotts policy is one of continuous development and we reserve the right to modify future models.

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